SUPERAGILE HIGH GAIN EARTH COVERAGE COMMUNICATION SYSTEM

ABSTRACT OF THE DISCLOSURE

A method (400) for providing communication bandwidth with a communication satellite includes reading (404) communication target positions from a position memory and electronically steering (406) an antenna in accordance with the target positions to provide bandwidth to the communication target. In addition, the method receives (408) updated communication target positions in an uplink and responsively updates (410) the communication target positions in the memory. Thus, each communication target independently exercises control over the pointing of the beam spot assigned to that communication target. The beam spot may be narrow (e.g., between 0.9 and 3.5 degrees in angular diameter) and thus provide high gain. A predetermined access schedule (e.g., a fixed length time division multiplexed frame) may be enforced to provide communication access for each communication target.